Amendment to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

CLAIM 1. (currently amended) A method of routing a call in an ad-hoc, peer-to-peer radio system, which radio system comprising a series of radio terminals, ~~each adapted to make at least an outgoing call, and where~~ each said terminal ~~is adapted~~ for use as a node to a call made from a source-terminal, said method comprising:

(a) transmitting one of voice-type, video-type and data-type over a routing path of said terminals serving as nodes;

(b) determining a class-of-service of the call;

(c) said step (b) comprising determining which one of said voice-type, video-type, and data-type is to be transmitted by the call;

(d) selecting a routing path based on said step (c);

(e) said step (ed) comprising basing its decision of a routing path based on latency and bit error rate.

CLAIM 2. (Original) The method of routing a call in an ad-hoc, peer-to-peer radio system according to claim 1, wherein when said step (b) indicates voice transmission, said step (d) comprises choosing a routing path of terminals having relatively high BER and relatively low latency.

CLAIM 3. (Original) The method of routing a call in an ad-hoc, peer-to-peer radio system according to claim 1, wherein, when said step (b) indicates data transmission, said step (d) comprises choosing a routing path of terminals having relatively low BER and relatively high latency.

CLAIM 4. (Original) The method of routing a call in an ad-hoc, peer-to-peer radio system according to claim 1, wherein, when said step (b) indicates video transmission, said step (d) comprises choosing a routing path of terminals having relatively low BER without excessive latency.

CLAIM 5. (currently amended) In an ad-hoc, peer-to-peer radio system comprising a series of terminals ~~where each said terminal is adapted to make at least an outgoing call~~, each said terminal comprising computer means and memory means for storing program software means therein, said memory means comprising software means for generating a routing table for use in determining the routing path of an outgoing call, and where said outgoing call is routed to its destination by routing said call along a route utilizing at least some of said terminals of said series of terminals as nodes, the improvement comprising:

said software means of said memory means of each said terminal comprising determination means for determining a class-of-service of said call, said determination means indicating one of voice, video and data is to be transmitted;

said software means further comprising measuring means for measuring the latency and bit error rate of each possible routing path available; and

said software means further comprising selecting means for selecting the optimal routing path for one of a voice, video or data transmission based on said measuring means, said selecting means comprising generating means for generating informational data indicating the selected routing path for the respective class-of-service of the outgoing call based on latency and bit error rate.

CLAIM 6. (Original) The ad-hoc, peer-to-peer radio system according to claim 5, wherein said software means further comprises message-generating means for generating a routing table, said routing table comprising time-frame based messaging, said time-frame based messaging having said informational data as a part thereof.

CLAIM 7. (Original) The ad-hoc, peer-to-peer radio system according to claim 6, wherein time-frame based messaging is based on time division technique in a code division multiple access system.

CLAIM 8. (Original) The ad-hoc, peer-to-peer radio system according to claim 6, wherein message-generating means for generating a routing table of each said terminal also comprises information on least-energy routing, so that the least amount of energy over a selected route is chosen for completing a call, whereby the minimizing of radiated RF energy is achieved in order to reduce interference between terminals, said time-frame based messaging also having said a section for reporting least-energy routing of a call.

CLAIM 9. (Original) The ad-hoc, peer-to-peer radio system according to claim 5, wherein said selecting means comprises means for choosing a routing path of terminals having relatively high BER and relatively low latency when the call to be transmitted is a voicetype transmission.

CLAIM 10. (Original) The ad-hoc, peer-to-peer radio system according to claim 5, wherein said selecting means comprises means for choosing a routing path of terminals having relatively low BER and relatively high latency when the call to be transmitted is a data-type transmission.

CLAIM 11. (Original) The ad-hoc, peer-to-peer radio system according to claim 5, wherein said selecting means comprises means for choosing a routing path of terminals having relatively low BER without excessive latency when the call to be transmitted is a video-type transmission.

CLAIM 12. (currently amended) In an ad-hoc, peer-to-peer radio system comprising a series of terminals ~~where each said terminal is adapted to make at least an outgoing call~~, each said terminal comprising computer means and memory means for storing program software therein, the method comprising:

(a) generating at each said terminal a routing table for use by it and other said terminals in determining the routing path of a call;

(b) routing a call to its destination using said routing tables by selecting a path utilizing at least some of said terminals of said series of terminals as nodes;

(c) said step (a) comprising in each said routing table informational data about a class-of- service of the call;

(d) said step (b) comprising selecting a path for said routing based on said informational data about the class-of-service.

CLAIM 13. (Original) The method according to claim 12, wherein said step (a) comprises including in each said routing table informational data about least-energy routing so that the least amount of energy over a selected route is chosen for completing a call, whereby the minimizing of radiated RF energy is achieved in order to reduce interference between terminals.

CLAIM 14. (Original) The method according to claim 12, wherein said step (d) comprises determining whether the class-of-service is one of voice-type, video-type, or data-type transmission.

CLAIM 15. (Original) The method according to claim 12, wherein said step (d) also comprises selecting a path based on the status of battery-life of at least one of said radio terminals.

CLAIM 16. (currently amended) In an ad-hoc radio terminal used in an ad-hoc, peer-to-peer radio system, which radio system comprising a series of ad-hoc radio terminals ~~each adapted to make at least one an outgoing call~~, each said radio terminal comprising computer means, and memory means for storing program software therein, said memory means comprising software means having generating means for generating potential routing paths for connecting a call to its destination utilizing at least some of said radio terminals of said series of terminals as nodes, the improvement comprising:

measuring means for measuring the values of latency and bit error rate along each potential routing path;

said software means comprising determination means for determining a class-of-service of the call to be transmitted, said determination means determining one of voice-type transmission, video-type transmission, or data-type transmission;

said software means further comprising discriminating means for discriminating between possible routing paths based on the class-of-service and the values of the latency and bit error of each potential routing path from said measuring means.

CLAIM 17. (Original) The radio terminal according to claim 16, wherein said software means of said memory means further comprises means for determining and reporting in said routing table information on least-energy routing so that the least amount of energy over a selected route is chosen for completing a call, whereby the minimizing of radiated RF energy is achieved in order to reduce interference between terminals.

CLAIM 18. (Original) The ad-hoc, peer-to-peer radio system according to claim 16, wherein said discrimination means comprises means for choosing a routing path of terminals having relatively high BER and relatively low latency when the call to be transmitted is a voice-type transmission.

CLAIM 19. (Original) The ad-hoc, peer-to-peer radio system according to claim 16, wherein said discrimination means comprises means for choosing a routing path of terminals having relatively low BER and relatively high latency when the call to be transmitted is a data-type transmission.

CLAIM 20. (Original) The ad-hoc, peer-to-peer radio system according to claim 16, wherein said discrimination means comprises means for choosing a routing path of terminals having relatively low BER without excessive latency when the call to be transmitted is a video-type transmission